

L 15168-65 EWT(m)/EWP(t)/EWP(b) IJF(c)/ASD(a)-5/AFETR JD

ACCESSION NR: AP4043585

S/0078/64/009/008/2025/2025

AUTHOR: Shmayevskiy, V. Ye.

TITLE: Physical properties of ZnCdSb₂ solid solutions

SOURCE: Zhurnal neorganicheskoy khimii, v. 9, no. 8, 1964, 2025

TOPIC TAGS: ZnCdSb₂, solid solution, electric conductivity, differential thermal e. m. f., forbidden zone

ABSTRACT: The electric conductivity (σ) and the differential thermal e. m. f. (α) of ZnCdSb₂ samples of the following composition were determined from room temperature to 180-200C.: ZnCdSb₂ containing 1--50; 2--49.75; 3--49.50; 4--50.25; 5--50.75 at. % Sb. Sample preparation and measurements were made as before by V. E. Shmayevskiy and T. P. Metil' (Ukr. fiz. zhurn. 7, 294 (1962)). As seen from the enclosed figures, a small change in Sb content significantly affects σ , α and ΔE (forbidden zone). "In conclusion I sincerely thank I. D. Feshchur for participating in conducting the measurements." Orig.

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art. has: 2 figures

ASSOCIATION: L'vovskiy gosudarstvenny*y universitet im. I. Franko
(Lvov State University)

SUBMITTED: 30Nov63

ENCL: 02

SUB CODE: SS

NO REF SOV: 006

OTHER: 001

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ACCESSION NR: AP4043585.

ENCLOSURE: 01

0

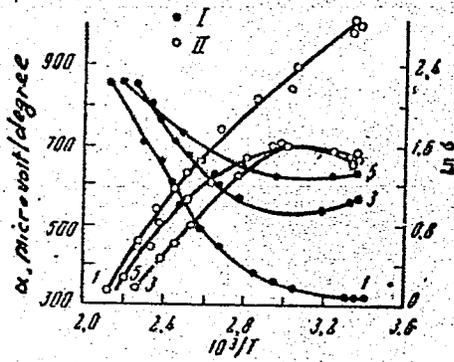


fig. 1

Change in \ln and α of samples, depending on inverse temperature. I-- \ln ; II-- α (figures indicate sample number)

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ENCLOSURE: 02

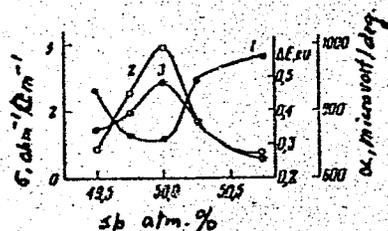


fig. 2

Change in G , (at 30C) and E with change in Sb content. 1-- ; 2-- ; 3-- E

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L 20948-66 EWP(m)/EWP(t) IJP(c) JD
ACC NR: AP6006766 (A) SOURCE CODE: UR/0185/66/011/001/0102/0104

AUTHORS: Shmavevs'kyy, V. Ye.; Babak, O. V.

ORG: L'vov State University im. I. Franko (L'vivs'kyy derzhuniver-
sytet)

TITLE: The effect of low-temperature annealing on certain physical
properties of the semiconducting solid solution $Zn_{\frac{2}{3}}Cd_{\frac{1}{3}}Sb_2$

SOURCE: Ukrayins'kyy fizychnyy zhurnal, v. 11, no. 1, 1966, 102-104

TOPIC TAGS: zinc compound, solid solution, thermal emf, electric
conductivity, Hall constant, hole mobility, carrier scattering,
annealing, crystal lattice structure

ABSTRACT: Samples prepared by a previously described method (Ukr.
Fiz. Zh. v. 7, 294, 1962) were annealed at 670K for 2000 hours. The
thermal emf, electric conductivity, and the Hall constant were
measured in a temperature range from 480K to room temperature during
heating and cooling. Both sets of measurements fitted one curve. The
samples were then annealed at 515 -- 545K for 300 hours and the

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ACC NR: AP6006766

measurements repeated. In agreement with other authors, hole conductivity was observed throughout. The temperature dependence of the mobility was obtained from the experimental data. At temperatures above 350K the mobility was proportional to $T^{-3/2}$, which indicates scattering of the carriers by thermal lattice vibrations. The experimental results indicate that even quantities which depend little on the carrier concentration change as a result of low-temperature annealing. This is due to ordering of the crystal lattice. This is also borne out by the fact that in $ZnCdSb_2$, unlike in metal solutions, the conductivity decreases after annealing because of increased chemical bonding which leads to decreased carrier concentration. Orig. art. has: 3 figures.

SUB CODE: 20/ SUBM DATE: 10Jun65/ ORIG REF: 009/ OTH REF: 001

Card :

2/2 mjs

SYVOROTKIN, G.S.; ZAYTSEVA, K.I.; SHMAYLOVA, Z.V.; STEPANOVA, T.I.;
ISAKOVA, Z.N.

Improving the Solonets soils for snow-protection plantations along
the railroads of the Volga region, Southern Urals and Kazakhstan.
Trudy TSNII MPS no.204:94-102 '60. (MIRA 14:4)

(Solonets soils) (Windbreaks, shelterbelts, etc.)

SHMAYN, M.M.; KOSTROMIN, Ye.I.

Dough distributor for swinging tray proofers. Khleb. i kond. prom. 1
no.5:7-9 My. '57. (MLRA 10:6)

1. Khlebozavod-avtomat imeni N.S. Khrushcheva Moskovskogo gorodskogo
tresta Glavnogo upravleniya khlebopekarnoy promyshlennosti RSFSR.
(Bakers and bakeries--Equipment and supplies)

NOVOSELOV, A.V.; SHMAYN, M.M.

N.S.Khrushchev Automatic Bakery of the Moscow City Baking Trust.
Khleb.i kond.prom. 1 no.10:14-18 0 '57. (MIRA 10:11)
(Moscow--Bakers and bakeries)

USSR/Electricity - Power Plants
Voltage Regulators

Apr 50

"Tests of Various Types of Excitation Regulators," Yu.
A. Shmayn, Engr, 3 pp

"Elek Stants" No 4

Describes tests carried out using 1,375 kva generator.
Following regulators tested: (1) VEI electronic vol-
tage regulator, (2) KhEMZ SN-91 regulator and (3) Met-
ropolitan-Vickers type VS-4 vibration regulator.
States conclusions. (Editors consider further compara-
tive tests should be made.)

158T18

SHMAYN, Yu. A.

AID P - 3261

Subject : USSR/Electricity

Card 1/2 Pub. 27 - 16/25

Authors : Ettienger, Ye. L., Kand. Tech. Sci., and Yu. A. Shmayn, Eng.

Title : Using current transformers for measurements in networks with rectifiers

Periodical : Elektrichestvo, 9, 71-73, S 1955

Abstract : The authors demonstrate that under certain conditions secondary currents of current transformers may considerably differ from primary ones due to the saturation of the core. They give some examples of tests with transformers with cores made of a permalloy type of material and cores of steel. They found that the permalloy type transformers (the MTT-1 and UTT-5 types) are not suited for measurements in rectifier circuits at 50 cycles, while those with steel cores (of TKF-20/5 type) give relatively small errors. Three diagrams.

SHMAYN, Yu.A., inzhener.

Calculation of the ignition circuit for ignitrons. Elektrichestvo no.4:
61-64 Ap '56. (MIRA 9:7)

1. Tsentral'naya nauchno-issledovatel'skaya elektrotekhnicheskaya labora-
toriya Ministerstva elektrostantsii.
(Electric current rectifiers)

SHMAYN, Yu.A., inzh.

Testing and using an electronic exciter of a 3,000 kv turbogenerator.
Elektrichestvo no.12:32-34 D '56. (MIRA 11:3)

1. TSentral'naya nauchno-issledovatel'skaya elektrotekhnicheskaya
laboratoriya Ministerstva elektrostantsiy.
(Electron tubes) (Turbogenerators)

8(

SOV/143-59-12-3/21

AUTHORS: Okolovich, M.H., Docent and Candidate of Technical Sciences. Shrayn, Yu. A., Engineer

TITLE: On the Computation of Series Transformers for Ion Ex-
citers

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy: Energetika, 1959, Nr 12, pp 15-24 (USSR) ✓

ABSTRACT: The article describes the results of research on series transformers in an ion self-excitation system of a 3400 kva turbogenerator, installed at the TETs MBI. Work was carried out by the Kafedra elektricheskikh stantsiy (Chair of Electric Stations) of MBI and the Laboratoriya elektricheskikh mashin (Electrical Machines Laboratory) of VNIIE. The equivalent circuit of the series transformer is shown in Figure 2a; Figure 2b shows the equivalent for the secondary circuit. The next part of the article deals with the peculiarities of the construction

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SOV/143-59-12-3/21

On the Computation of Series Transformers for Ion Exciters

of the series transformers. The core must remain unsaturated all the time, so that the resistance to mutual induction should be invariable. The air gap in the core may be inside or outside the windings; Figure 3 shows the magnetic field in both cases. The swelling of the magnetic current at the air gap complicates matters, but in the course of research, the authors found that the radial diffusion current is less, the resistance under no-load conditions less and the regulating effect greater when the air gaps are in the core inside the windings. The air gap takes the form of a row of air interstices, the total length of which equals the calculated length. If the latter is unchanged while the length of separate interstices is reduced, the magnetic current does not swell so much at the gaps. The authors found that the length of the single gap should not exceed 10-12 mm. As for the shape of the section of the magnetic

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SOVA43-59-12-5/21

On the Computation of Series Transformers for Ion Exciters

circuit, the thickness of the pack b [Figure 3a] should be increased and the width of the leaf a reduced as far as possible, in order to minimize the risk of over-heating of the core. Tests carried out at the Moskovskiy transformatornyy zavod (Moscow Transformer Plant) showed that the losses of energy (which lead to over-heating) when the magnetic force lines enter the cross section of a steel sheet are about 30 times less than losses occurring when the lines enter the plane of the sheet. The authors found that if the core had a rectangular cross section of sides $b : a = 2-2.5$ made of 0.35 mm sheet steel, the temperature of the steel at its hottest point would not exceed $50-75^{\circ}$ when $B_{op} = 3000-4000$ gauss. The lengths of the primary and secondary windings should be similar during operation on any branch. The distance between the core and the secondary winding should not be too small. The windings should be

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On the Computation of Series Transformers for Ion Exciters

placed on two rods, the primary winding being above the secondary. The last part of the article is an approximate calculation of the basic parameters of series transformers when the rated transient short circuit current passes through the primary winding and the rated voltage is obtained in the open secondary winding. The magnetic induction of the coil, made of E⁴ steel, may be rated at 12,000-14,000 gauss; the coefficient for displacement of the magnetic current is taken as 1.2-1.4; the size of the air gap at the same time should be from 32 to 48 mm. The author asserts that the graphs showing the relationship $\alpha = f(B_{ct}, \delta)$ (where α is the coefficient for displacement of the magnetic current, B_{ct} - magnetic induction in the core, δ - length of the air gap) could be used for calculating construction details of other series transformers. Formulae are given for determining the cross section of the magnetic circuit,

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SOV/143-59-12-3/21

On the Computation of Series Transformers for Ion Exciters

the number of turns in the primary and secondary windings and the size of the total air gap. The series transformer calculations were then made for the DA-68/4 3400 kva 6300 v stator voltage and 312 a stator current turbo-generator for 2 TETs MBI. The parameters calculated are given in the first line of table 1, which also gives the results of research on three other single-phase series transformers built on this calculation's basis. The greatest difference between the experimental and calculated results does not exceed 8-9%. A test calculation made of the resistance to mutual induction in OSV-1800 series transformers made by the "Uralelektroapparat" plant for the 55 megawatt generators of the Rybinskaya GES showed not more than 4% variance from the experimental data. There are 4 graphs, 1 set of graphs, 1 circuit diagram, 1 set of circuit diagrams, 1 set of diagrams, 1 table and 3 Soviet references.

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SOV/143-59-12-3/21

On the Computation of Series Transformers for Ion Exciters

ASSOCIATION: Moskovskiy ordena Lenina energeticheskiy institut ✓
(Moscow Order of Lenin Power Engineering Institute)

SUBMITTED: June 10, 1959, by the Kafedra elektricheskikh stantsiy
(Chair of Electric Stations)

Card 6/6

SHMAYN, Yu.A., inzh.; Prinimali uchastiye: KHARLAMOV, S.Kh., inzh.;
BIRYULEV, V.G., inzh.; TAMANTSEVA, I.S., inzh.; IGLITSYN, I.L.,
red.; LARIONOV, G.Ye., tekhn.red.

[Study of ignitron characteristics and design of firing circuits]
Issledovanie kharakteristik zashigatelei i raschet skhem zashiga-
niia ignitronov. Moskva, Gos.energ.izd-vo, 1960. 57 p. (Moscow.
Vsesoiuznyi nauchno-issledovatel'skii institut elektroenergetiki.
Informatsionnye materialy, no.56). (MIRA 14:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut elektroenergetiki
(for Kharlamov, Biryulev, Tamantseva).
(Mercury-arc rectifiers)

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S/110/60/000/010/004/014
E194/E455

9.2540 (10 20, 1159, 1138)

AUTHOR: Shmayn, Yu.A., Engineer

TITLE: Requirements Applicable to Ignitron Ignition Circuits

PERIODICAL: Vestnik elektropromyshlennosti, 1960, No.10, pp.27-30

TEXT: Reliability and stability of ignition is one of the most important factors in the normal operation of ignitrons. Unsatisfactory operation is often due to poor choice of ignition circuit parameters. There are two main requirements of such ignition circuits: the circuits should deliver periodic ignition impulses which are sufficient to form a cathode spot at given instants of time: the duration of the ignition impulse should be such that the cathode spot lasts long enough to form an arc on the main anode of the ignitron over the whole range of control. In order to fulfil the first requirement, it is necessary to determine the parameters required of the impulse, which may be done experimentally. Such work was carried out in the All-Union Scientific Research Institute of the Electrical Industry in connection with the development of an ionic excitation circuit for

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Requirements Applicable to Ignitron Ignition Circuits

an alternator. Several types of ignitron were tested and the ignition current, voltage and power were determined as functions of ignition time for various Soviet and American ignitrons. The ignition voltage and current depend on the steepness of the impulse front. As the front is made steeper the voltage and current increase but the ignition time is reduced and the power falls. Test results on 25 different types of igniter showed that the ratio of the maximum ignition voltage and current to the mean values does not exceed 1.5 to 1.6 with mean times up to 200 microseconds. Reliable ignition can be obtained with impulses of the most varied characteristics. Selection of impulse characteristics depends mainly on the need to maintain firing angle accurately. The less strict this requirement the flatter may be the ignition impulse. If the front is steep and the ignition time is less than 50 to 80 microseconds, the igniter wears very rapidly. There are also undesirable effects in the thyatron itself. It is necessary to form a reliable cathode spot whatever the resistance of the igniter. Volt-ampere characteristics of ignitrons of various types are

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Requirements Applicable to Ignitron Ignition Circuits

plotted along with data for ignition times in microseconds. To construct the external characteristics of the ignition circuit from this data it is first necessary to find the line which includes all the operating points of the ignitrons corresponding to the mean ignition time, and then to multiply by a factor allowing for scatter of the igniter characteristics. In this way a curve of the minimum necessary external characteristics of the ignition circuit is obtained. Such characteristic curves are constructed for various ignition times and the great influence of the mean ignition time on the ignition circuit parameters is clearly seen. The time for which the cathode spot must be maintained depends both on the construction of the ignitron and on its temperature and also on the value of the anode voltage. Accordingly, in designing an ignition circuit it is, in general, necessary to determine: the mean ignition time, which need not generally be less than 50 microseconds or greater than 800 microseconds; the length of wave front of the impulse; next, the relationship between the mean ignition current and voltage and time of ignition of typical ignitrons: then, the

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E194/E455

Requirements Applicable to Ignitron Ignition Circuits

necessary external characteristics of the ignition circuit for a given mean ignition time; and finally, the minimum total length of impulse, with a safety factor. Experience shows that ignition circuits designed in this way provide reliable and stable ignition of ignitrons. There are 4 figures and 5 references - 2 Soviet and 3 non-Soviet.

SUBMITTED. December 15, 1959

Card 4/4

SHMAYN, Yu. A. Cand Tech Sci -- "Study ^{and} ~~of the~~ design of ignitron ignition
~~systems.~~ ^{circuits.}" Mos, 1961 (Min of Railways USSR. All-Union Sci Res Inst of Railroad
Transport). (KL, 4-61, 203)

205
-205-

SHMAYN, Yu.A., inzh.; BIRYULEV, V.G., inzh.

Problems concerning the design of a circuit for the ignition of
ignitrons. Elektrichestvo no.6:61-65 Je '61. (MIRA 14:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut elektroenergetiki.
(Mercury-arc rectifiers)

GLUKH, Ye.M., kand.tekhn.nauk; ETTINGER, Ye.L., kand.tekhn.nauk;
CHALYY, G.V., kand.tekhn.nauk; SHMAYN, Yu.A., inzh.

Testing of the ionic self-excitation system of a large hydro-
generator. Vest. elektroprom. 32 no.11:4-9 N '61. (MIRA 14:11)
(Turbogenerators)

SHMAYN, Yu.A., kand.tekhn.nauk; KHARLAMOV, S.Kh., inzh.

Regulation of the ignition interval of an ionic current converter.
Vest.elektroprom. 33 no.12:44-45 D '62. (MIRA 15:12)

(Electric current converters)

KOSMACHEVA, L.G.; SHMAYS, I.I.

Bitumen luminescence study of upper Paleozoic sediments in
the Aktyubinsk portion of the Ural Mountain region. Trudy
Inst.nefti AN Kazakh.SSR 3:158-163 '59. (MIRA 13:1)
(Aktyubinsk Province--Bitumen)

MUKASHEV, Z.A.; SHMAYS, I.I.

Spectrophotometry of the fluorescence of petroleums. Uch.zap.-
Kazakh.un. 37 no.4:140-144 '58. (MIRA 15:4)
(Petroleum) (Fluorescence)

SHMAYS, I.I.; BELOV, Ye.V.

Features of the distribution of scattered bitumens in the
sediments of the Volga-Ural interfluve. Geol. nefti i gaza
8 no.4:44-46 Ap '64. (MIRA 17:6)

1. Kazakhskiy politekhnicheskii institut.

С. С. Шмчистин
SHMCHISHIN, Ye.F.

Our experience in studying progressive work methods. Neft.
khoz.33 no.8:83-85 Ag '55. (MIRA 8:10)
(Oil well drilling)

BOGUSLAVSKIY, I.Ya., starshiy nauchnyy sotrudnik; BOCHAROV, Yu.G.,
mladshiy nauchnyy sotrudnik; YENTOV, O.I., mladshiy nauchnyy
sotrudnik; BUBLIK, V.I., inzh.; GOLOVANOVA, I.N., inzh.;
KHITSUN, V.N., inzh.; SEMENENKO V.I., inzh.; SHMEDRIK, S.S.,
inzh.; LEVCHENKO, D.V., otv.red.; CHETYRKIN, M.I., red.;
PINEGIN, I.I., red.izd-va; ISLENT'YEVA, P.G., tekhn.red.

[Enlarged machining and time norms for planing and slotting;
piece and small lot production] Ukpupnennye normy i normativy
vremeni na strogal'nye i dolbeznye raboty; individual'noe i
melkoseriynoe proizvodstvo. Moskva, Gos.nauchno-tekhn.izd-vo
lit-ry po chernoi i tsvetnoi metallurgii, 1961. 408 p.
(MIRA 14:12)

1. Kharkov. Vsesoyuznyy nauchno-issledovatel'skiy institut
organizatsii proizvodstva i truda chernoy metallurgii.
(Metal cutting)

BOGUSLAVSKIY, I.Ya., starshiy nauchnyy sotr.; BOCHAROV, Yu.G., mlad. nauchnyy sotr.; YENTOV, O.I., mlad. nauchnyy sotr.; EUBLIK, V.I., inzh.; GOLOVANOVA, I.N., inzh.; KHITSUN, V.N., inzh.; SEMENENKO, V.I., inzh.; ~~SHMEDRIK, S.S.~~, inzh.; LEVCHENKO, D.V., otv. red.; BURSHEYN, A.I., red. izd-va; ISLENT'YEVA, P.G., tekhn. red.

[Consolidated norms and time norms for boring work; piece and small lot production] Ukrupnennyye normy i normativy vremeni na rastochnyye raboty; individual'noe i melkoseriinoe proizvodstvo. Moskva, Metallurgizdat, 1962. 407 p. (MIRA 15:3)

1. Kharkov. Vsesoyuznyy nauchno-issledovatel'skiy institut organizatsii proizvodstva i truda chernoy metallurgii.
(Drilling and boring--Production standards)

SHMEGEVSKIY, S.A.

Experience in tuberculosis control in Marganets. Probl. tub. 42
no.12:8-10 '64. (MIRA 18:8)

1. Gorodskoy protivotuberkuleznyy dispanser (glavnyy vrach K.T.
Kletskina), Marganets.

Physical and Chemical Studies of Austenitic Alloys 269

Entin, S.D. Formation of the Alpha-Phase in Plastic Deformation of Austenitic Alloys 116

An investigation is made of the effect of the original structure on the stability of austenite during deformation, formation of the alpha-phase as affected by the degree of deformation, effect of deformation at elevated temperatures on the dissociation of austenite, and the formation of the alpha-phase immediately upon deformation. There are 5 Soviet references.

Lashko, N.F. Effect of Manganese and Nickel on the Phase Composition of Certain Austenitic Steels 126

Yeremin, N.I.; Lashko, N.F. Concerning the Distribution of Nitrogen Between Solid Solutions and Second Phases in Austenitic Steels 131

There are 3 Soviet references

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Physical and Chemical Studies of Austenitic Alloys 269
Temperature Oxidation 172

There are 7 references, of which 3 are Soviet,
3 English, and 1 German.

Komarovskiy, A.G., Candidate of Technical Sciences. 184
Local Spectral Analysis

The potentialities of spectral analysis as a means
of determining local chemical composition of metal,
particularly of welded seams, are investigated.
There are 3 Soviet references.

Komarovskiy, A.G. A Rapid Method of Spectral Analysis 199
of Austenitic Steels

The author outlines his method for the rapid quantitative
analysis of high-alloy steels and heat-stable alloys for
silicon, manganese, chromium, nickel, molybdenum, tungsten,
titanium, vanadium, cobalt, aluminum, boron, and niobium.
There are 26 references, of which 20 are Soviet, 2 English,
2 German, 1 Italian, and 1 Scandanavian.

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Physical and Chemical Studies of Austenitic Alloys 269

It is stated that this device enables the investigator to study, on the basis of magnetic properties, changes in phase composition in heat-stable austenitic alloys of various composition.

Entin, S.D.; Kozlov, Engineer. Electromagnetic Instrument for Determining Ferrite in Welded Seams of Austenitic Steels

255

The authors state that with this instrument it is possible to determine the quantity of ferrite to within 0.2% if the total content in the specimen does not exceed 5%, and to within 0.5-0.7% if the total quantity does not exceed 15%.

AVAILABLE: Library of Congress

GO/ksv

Card 10/10

SHMELEV B.A.

137-58-3-6191

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 3, p 250 (USSR)

AUTHOR: Shmelev, B.A.

TITLE: A Universal Device for the Determination of Gases in Steel
(Universal'naya ustanovka dlya opredeleniya gazov v stali)

PERIODICAL: V sb.: Fiz-khim. issled. austenitn. splavov. Moscow, Mashgiz,
1957, pp 226-240

ABSTRACT: The author describes a device developed by TsNIITMASH for the purpose of determining the quantity of O_2 , N_2 , and H_2 , present in the steel, by means of vacuum smelting at a temperature of approximately 1600° . The layout of the device is examined in detail together with its individual components: a model VP-5 vacuum furnace (of TsNIITMASH design) equipped with a tubular graphite heating element, a pumping system for producing vacuum, and a device for the measurement of the vacuum. Brief instructions on the operation of the equipment are given, together with instructions for the determination of the composition of the extracted gases. It is pointed out that that by means of stepwise extraction of the gases at various temperatures it is possible to determine what fraction of the total O_2 or N_2

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SOV/137-58-7-16165

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 7, p 320 (USSR)

AUTHORS: Shmelev, B. A., Danilova, Ye. N.

TITLE: Amperometric Determination of Magnesium with a Rotating Platinum Electrode (Amperometricheskoye opredeleniye magniya s vrashchayushchimsya platinovym elektrodom)

PERIODICAL: Sb. nauchn. rabot. Mosk. in-t nar. kh-va, 1957, Nr 10, pp 335-342

ABSTRACT: The possibility of amperometric determination of Mg by means of its precipitation with a solution of Na_2HPO_4 at 10:5 pH (established by an ammonia buffer solution) is established. The titration is carried out with a rotating Pt electrode at 1.9 v (saturated electrolyte). In solutions of pure salts in the determination of $4.88 \cdot 10^{-3}$ - $6.08 \cdot 10^{-6}$ /g Mg the error is $\leq 3.5\%$. In the presence of Ca it is first precipitated with a concentrated solution of $(\text{NH}_4)_2\text{C}_2\text{O}_4$, and the Mg is titrated without separating the precipitate.

1. Magnesium--Determination 2. Platinum electrodes--Applications

Card 1/1

N. G.

SHMELEV, B.A.

Fractional method for determining hydrogen in steel. Zav. lab. 23 no.3:
263-269 '57. (MLRA 10:6)

1. Tsentral'nyy nauchno-issledovatel'skiy institut tekhnologii i mashinostroyeniya.
(Distillation, Fractional) (Hydrogen--Analysis)
(Steel--Analysis)

20 APR 20 1954

Distr: 4E4j/4E2c

27
 ✓ Hydrogen in steel. B. A. Shmelev. *Izvestia. Nauch.-Issledovatel. Inst. Tekhnol. i Mashinostroyen.* 84, 12-40 (1957); *ibid.* C.A. 52, 972g. — Different methods of detg. H in steel are discussed. A method of sampling and storing specimens for H analysis is outlined. The molten metal is drawn into quartz tubes, 8-9 mm. inside diam., and sepd. with constrictions every 20-5 mm. After quenching in water the tube is broken at the constrictions and the specimens stored under glycerol. H is detd. by electrolytic satn. in 2 cells in series with the specimen as a cathode in one and a Pt wire in the other. H absorbed is evaluated by the difference in vol. of displaced electrolyte in both cells. After satn. the specimen is stored in glycerol and H evolved in aging is detd. by the vol. of glycerol displaced. The specimen is then analyzed for H *in vacuo*. 35 references. I. Bencowitz

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SHMELEV, B.A., kand.tekhn.nauk

Universal apparatus for determining gases in steel. [Trudy]
TSNIITMASH 84:226-240 '57. (MIRA 10:11)
(Gases--Analysis) (Steel--Analysis)

YEREMIN, N.I., kand.fiz.-mat.nauk; YELCHIN, P.M., inzh.; KOMAROVSKIY,
A.G., kand.tekhn.nauk; CHEBURKOVA, Ye.Ye., kand.tekhn.nauk;
SHMELEV, B.A., kand.tekhn.nauk; ENTIN, S.D., kand.tekhn.nauk

Physical and chemical methods for the investigation in the
phase analysis of alloys. [Trudy] TSNIITMASH 100:90-106
'59. (MIRA 13:7)

(Alloys)

MAKOLKIN, Ivan Afanas'yevich; SHMELEV, Boris Aleksandrovich;
IZMAYLOV, A.V., doktor khim. nauk, retsenzent;
KARAPET'YANTS, M.Kh., doktor khim. nauk, retsenzent;
MISHCHENKO, K.P., doktor khim. nauk, retsenzent;
FEDOROVA, T.P., red.; BARANOV, Yu.V., tekhn. red.

[Collection of examples and problems in physical and col-
loid chemistry] Sbornik primerov i zadach po fizicheskoi
i kolloidnoi khimii. Moskva, Rosvuzizdat, 1963. 181 p.
(MIRA 16:4)

(Chemistry, Physical--Problems, exercises, etc.)

ZAYTSEV, A.I.; SIMELEV, B.G., inzh., retsennent; BRASLAVSKIY,
G.B., inzh., red.

[Economic efficiency of precision casting] Ekonomicheskaiia
effektivnost' lit'ia po vyplavliaenym modeliam. Moskva,
Izd-vo "Mashinostroenie," 1964. 75 p. (MIRA 17:5)

VOLKOV, Yu.I., inzh.; GAFANOVICH, A.A., kand.tekhn.nauk; GLADKOV, N.G.,
kand.sel'skokhoz.nauk; GORKUSHA, A.Ye., agr.; ZHITNEV, N.F., inzh.;
ZANIN, A.V., kand.tekhn.nauk; ZAUSHITSYN, V.Ye., kand.tekhn.nauk;
ZVOLINSKIY, N.P.; ZEL'TSERMAN, I.M., kand.tekhn.nauk; KAIPOV, A.N.,
kand.tekhn.nauk; KASPAROVA, S.A., kand.sel'skokhoz.nauk; KOLOTUSHKINA,
A.P., kand.ekon.nauk; KRUGLYAKOV, A.M., inzh.; KURNIKOV, I.I., inzh.;
LAVRENT'YEV, L.N., inzh.; LEBEDEV, B.M., kand.tekhn.nauk; LEVITIN,
Yu.I., inzh.; MAKHLIN, Ye.A., inzh.; NIKOLAYEV, G.S., inzh.;
POLESHCHENKO, P.V., kand.tekhn.nauk; POLUNOCHEV, I.M., agr.; P'YANKOV,
I.P., kand.sel'skokhoz.nauk; RABINOVICH, I.P., kand.tekhn.nauk;
SOKOLOV, A.F., kand.sel'skokhoz.nauk; STISHKOVSKIY, A.A., inzh.;
TURBIN, B.G., kand.tekhn.nauk; CHABAN, I.V., inzh.; CHAPKEVICH, A.A.,
kand.tekhn.nauk; CHERNOV, G.G., kand.tekhn.nauk; SHMELEV, R.M., kand.
tekhn.nauk; KRASNICHENKO, A.V., inzh., red.; KLETSKIN, M.I., inzh.,
red.; MOLYUKOV, G.A., inzh., red.; ELAGOSKLONOVA, N.Yu., inzh., red.;
UVAROVA, A.F., tekhn.red.

[Reference book for the designer of agricultural machinery in two
volumes] Spravochnik konstruktora sel'skokhoziaistvennykh mashin
v dvukh tomakh. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.
lit-ry. Vol.1. 1960. 655 p. (MIRA 13:11)
(Agricultural machinery--Design and construction)

KLENIN, N.I., dots.; POPOV, I.F., dots.; SERGEYEV, A.S., dots.;
SOLOV'YEV, V.M., dots.; TIMOFEYEV, A.I., dots.; SHMELEV,
B.M., dots.; LETNEV, B.Ya., red.; PEVZNER, V.I., tekhn.
red.; DUDAKOV, V.A., tekhn. red.

[Manual on practical exercises with agricultural machines
and implements] Praktikum po sel'skokhoziaistvennym mashinam
i orudiam. [By] N.I.Klenin i dr. Moskva, Sel'khozizdat,
1963. 319 p. (MIRA 17:2)

12/1/57
621.01
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Mr. [unclear] [unclear], [unclear], 1957.
12. P. [unclear], [unclear].

SHMELEV, F.A.

Supply oil fields with high-grade equipment. Bezop. truda v prom.
Z no.2:37 P '58. (MIRA 11:2)

1. Pomoshchnik glavnogo inzhenera po tekhnike bezopasnosti tresta
Tatneftegazrazvedka.
(Oil fields--Equipment and supplies)

SHMELEV, F.A.

Drilling slim test wells. Neftianik 6 no.8:7-8 Ag '61.
(MIRA 14:10)

1. Starshiy inzh. nefterazvedki strukturnogo bureniya No.2
geologoposkovoy kontory tresta Tatneftegazrazvedka.
(Oil well drilling)

GUSEV, N.I.; SHMELEV, F.N.; PAYMAN, V.G.

Effect of first and second group cations on the kinetics of
anodic dissolving of copper in an acid electrolyte. Izv. vys.
ucheb. zav.; khim. i khim. tekhn. 8 no. 4: 587-591 '65.

(MIRA 18:11)

L. Moskovskiy institut narodnogo khozyaystva imeni Plekhanova,
kafedra fizicheskoy i kolloidnoy khimii.

DRAGUNOV, S.S.; SHMELEV, F.N.

Characteristics of the carbohydrates of peat formers and humic
fertilizers. Trudy Kal. tozf. inst. no.13:20-22 '63.
(MIPA 17:12)

SHMELEV, G.

Seasonal work in agriculture and how to reduce it. Vop. ekon.
no.8:77-84 Ag '62. (MIRA 15:8)
(Agriculture)

SHMELEY, G. I.

Thermoelement. G. I. Shmeley. U.S.S.R. 109,343,
Dec. 26, 1957. The pos. branch of the thermoelement is
made of $SbBiTe_3$, while the neg. branch is of Bi telluride to
which is added up to 1% of I. The 2 branches are joined
with molten $SbBiTe_3$ or Bi_2Te_3 . M. Hosh...

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AYRAPETYANTS, S. V.; SHMELEV, G. I.

Method of growing uniform single crystals of doped semiconducting materials, solid solutions, and intermetallic compounds with a definite composition, determined by the constitution of the melt. Fiz. tver. tela 2 no.4:747-755 Ap. '50. (MIRA 13:10)

1. Institut poluprovodnikov AN SSSR, Leningrad.
(Crystals)

SIMBLEV, Goliy Ivanovich; BUZDALOV, Ivan Nikolayevich; LEONOVA,
T.S., red.; KASHITIN, I.T., tekhn. red.

[Intensification of agriculture] Intensifikatsiia v sel'-
skom khoziaistve. Moskva, Izd-vo "Znanie," 1962. 29 p.
(Novoe v zhizni, nauke, tekhnike. V Serii: Sel'skoe kho-
ziaistvo, no.14) (MIRA 15:7)

(Agriculture)

SHMELEV, Gelly Ivanovich; BAKOVETSKIY, O., red.; KOROLEVA, A.,
mlad. red.

[Distribution and use of labor on collective farms] Ras-
pol'zovanie truda v kolkhozakh. Moskva, Izd-vo "Mysl',"
1964. 141 p. (MIRA 17:8)

KUNTSEVICH, Iosif Porfir'yevich, kand. tekhn. nauk; TER-MKRTICHAN, Ashot Khristoforovich, inzh.; SHMELEV, G.M., red.; SMIRNOVA, R.N., red.izd-va; KHENOKH, E.M., tekhn. red.

[Machines and implements for establishing and maintaining greenbelts and parks; an album] Mashiny i orudia dlia zelenogo stroitel'stva i khoziaistva; al'bom. Moskva, 1962. 144 p.
(MIRA 16:1)

1. Akademiya kommunal'nogo khozyaystva.
(Landscape gardening--Equipment and supplies)

PLATONOV, G.F., kand. tekhn. nauk; SHMELEV, G.M., inzh.

Operation of a large electric copper and nickel smelting furnace.
Prom. energ. 19 no.12:8-11 D '64.

(MIRA 18:3)

GLEBOVA, Antonina Ivanovna; SAVONIN, Yevgeniy Fedorovich; SEMELEV, I.

[Economic accountability at enterprises of the Penza Economic Council] Khozraschet na predpriatiakh Penzenskogo sovmarkhoza. Penza, Penzenskoe knizhnoe izd-vo, 1960. 242 p.

(MIRA 14:7)

(Penza Province--Accounting)

SOKOLOV, I.P.; KAN, Ye.K.; ROZANOV, N.M.; SHMELEV, I.A.

Trends in further oil and gas prospecting in the Fergana Valley. Geol.nefti i gaza 3 no.12:13-16 D '59.
(MIRA 13:4)

1. Ferganskiy neftyanoy kombinat Kirgizneft' i Vsesoyuznyy nauchno-issledovatel'skiy geologo-razvedochnyy neftyanoy institut (VNIGNI).

(Fergana--Petroleum geology)

(Fergana--Gas, Natural--Geology)

S/009/60/000/008/002/005
B027/B076

AUTHORS: Rozanov, N. M., Shmelev, I. A., Sokolov, I. P.
TITLE: Prospects concerning Jurassic oil and gas deposits of the Fergana depression
PERIODICAL: Geologiya nefi i gaza, no. 8, 1960, 8-13

TEXT: The abundant material concerning Fergana shows that Jurassic deposits are oil and gas-bearing to an industrial extent. Several boring operations, e.g. at Mayli-Su lead to the discovery of gas and oil. In 1959 a gas gusher was discovered in the Jurassic sandstone at Severnyy Sokh at a depth of 2050-2070 m which yielded 210.000 m³/24 hr; the gas pressure in the layer was 222 at. For the time being there is no uniform stratigraphic diagram of the Jurassic cross section of Fergana. The first trial made in 1958 V. V. Kutuzova, who subdivided these deposits into Liassic, Dogger, and Malm. Explorations showed that the Jurassic deposits are unconformable and located on the washed out Paleozoic and Permian-Triassic strata. In various areas Jurassic deposits are connected

Card 1/3

Prospects concerning Jurassic oil and gas ...

S/009/60/000/008/002/005
B027/B076

with the occurrence of pit coal. Middle and Upper Jurassic deposits are to be found in almost all cross sections in South, East and North Fergana. Regarding the deepest part of the Fergana depression no data are yet available, however, the general geological and geophysical data give rise to the assumption that these deposits exist there in a thickness of over 1500 m. In many hollows between the mountains of Central Asia Jurassic deposits are oil-bearing under analogous conditions. From the beginning of the Jurassic period throughout almost the whole Mesocenozoic the Fergana depression was a region of sedimentary accumulations surrounded by mountains. At the edge of the depression coarser sediments and coal-bearing facies were deposited and in the central parts finer sediments. This distribution of sediments is particularly favorable for the oil formation and its migration toward the edges of the depression. It can be seen from the above that the Jurassic deposits of the Fergana depression are very interesting with respect to oil and gas, especially where these horizons are situated at attainable depths. The geologists of Ferganneftekombinat and NPU Kirgizneft' should therefore focus their attention on the various groups of folds in the eastern part of Fergana.

Card 2/3

Prospects concerning Jurassic oil and gas ... S/009/60/000/008/002/005
B027/B076

N. M. Rozanov and I. A. Shmelev are mentioned. There are 1 figure and
2 tables.

ASSOCIATION: VNIGNI (All-Union Petroleum Scientific Research Institute
for Geological Exploration)

Card 3/3

SHMELEV, I.A.; ZUBOV, F.P.

Outlook for oil and gas in the Mesozoic sediments of the northeastern margin of the Fergana Valley. Geol.nefti i gaza 5 no.9:25-28
S '61. (MIRA 14:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologorazvedochnyy
neftyanoy institut i Neftepromyslovoye upravleniye Kirgizneft'.
(Fergana--Petroleum geology)
(Fergana--Gas, Natural Geology)

SHMELEV, I.G.; BALAKIREV, B.G.

Letter to the editor. Izv.AN SSSR Otd.tekh.nauk no.5:780-781 My '53.
(MLRA 6:8)
(Bearings (Machinery)) (D'iachkov, A.K.)

BARSHATOV, A. P. and SHMELEV, I. I.

"The Focusing of Sound in a Wave-Guide."

paper presented at the 4th All-Union Conf. on Acoustics, Moscow, 26 May - 2 Jun 58.

SHMEKKER, Ya.M.; MEGNINOV, A.A.; LEONOV, I.V.; LEONOV, P.P.

Method for manufacturing reagent sulfuric acid from gases of a sulfuric acid system. Prom.energ. 11 no.6:31 Je '56.(MLRA 9:9)
(Sulfuric acid)

SIMEKKER, Ya. M.

"New Developments in the Technology of Manufacturing Chemical REagents"

The Kirov District of Leningrad Strives for Technological Progress; Collection of Articles, Leningrad, Sudpromgiz, 1957. 171pp.

This collection of articles describes the progressive experience of the industrial plants of the Kirov district of the city of Leningrad in the fields of shipbuilding, machine building, instrument-making, casting, hydrolytic and other industries. New manufacturing methods are discussed.

MUKHLENOV, I.P.; TRABER, D.G.; MIKHALEV, M.F.; SHMEKKER, Ya.M.

Oxidation of sulfur dioxide in an apparatus with a fluidized catalyst
bed. Khim.prom. no.1:42-46 Ja '61. (MIRA 14:1)

1. Leningradskiy technologicheskij institut imeni Lensovetu i zavod
"Krasnyy Khimik."

(Sulfur dioxide) (Fluidization)
(Oxidation)

MUKHLENOV, I.P.; TRABER, D.G.; SARKITS, V.B.; RUMYANTSEVA, Ye.S.;
MIKHALEV, M.F.; SHMEKKER, Ya.M.; CHERNYAK, M.A.

Testing an apparatus for the oxidation of concentrated sulfur
sioxide in a fluidized catalyst bed. Khim.prom. no.11:770-775
N '61. (MIKA 15:1)

1. Leningradskiy tekhnologicheskij institut im. Lensoveta, i
Leningradskiy zavod "Krasnyy khimik".
(Chemical apparatus) (Sulfur dioxide)
(Catalysis)

KATSMAN, F.; SHMELEV, A.; LOGINOV, L., starshiy inzh.

Use of strain gauges for testing marine internal combustion engines.
Mor.flot 21 no.5:22-23 My '61. (MIRA 14:5)

1. Nachal'nik otдела Tsentral'nogo proyektno-konstruktorskogo byuro
No.1 Ministerstva morskogo flota (for Katsman).
(Marine diesel engines--Testing)
(Strain gauges)

YEROFEYEV, N.S.; KOZLOV, A.L.; SAVCHENKO, V.P.; YELIN, N.D.; ALEKSIN, A.G.;
MAKSIMOV, S.P.; DAKHNOV, V.N.; SHMELEV, A.A.; KOZHUKHOV, V.A.;
ANDRIANOV, N.I.; KOPOSOV, I.A.; YENIKHEYEV, P.N.; KALANTAROV, A.P.,
vedushchiy red.; TROFIMOV, A.V., tekhn.red.

[Efficient method of prospecting for gas fields; studies of the
temporary commission of the State Scientific and Technical
Committee of the U.S.S.R.] Ratsional'naya metodika razvedki
gazovykh mestorozhdenii; materialy vremennoi komissii GNTK SSSR.
Moskva, Gos.nauchno-tekhn.izd-vo neft. i gorno-toplivnoi lit-ry,
1960. 125 p. (MIRA 13:3)

1. Russia (1923- U.S.S.R.) Gosudarstvennyy nauchno-tekhnicheskii
komitet.
(Gas, Natural) (Prospecting)

SHMELEV, A.A.

KREMS, A.Ya; ZDOROV, S.F.; BONDARENKO, S.M.; ADAMOV, A.I.; ZOTKIN, M.M.
redaktor; SHMELEV, A.A., redaktor; POLOSINA, A.S., tekhnicheskiy
redaktor.

[Oil mining] Shakhtania razrabotka neftiyanykh mestorozhdenii. Pod
red. M.M. Zotkina i A.A. Shmeleva, Moskva, Gos. nauchno-tekhn.
izd-vo neftianoi i gornotoplivnoi lit-ry, 1955. 273 p. (MLRA 8:8)
(Petroleum engineering)

DVORKIN, V.Ya.; CHETVERIKOV, D.A.; SHMELEV, A.A.

Chromatographic fractionation of the phospholipides of the rat brain
on a silica gel column. Biokhimiia 28 no.3:475-481 My-Je '63.
(MIRA 17:2)

1. Institute of Physiology, Academy of Sciences of the U.S.S.R., Lenin-
grad.

L 1337-66 EWT(1)/ES(v)-3 DD

ACCESSION NR: AP5021236

UR/0300/65/037/004/0529/0537

AUTHOR: Dvorkin, V. Ya.; Chetverikov, D. A.; Shmelev, A. A.

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29
B

TITLE: Study of the content and renewal rate of various phospholipid fractions of the rat brain in a normal state and during hypoxia

SOURCE: Ukrayins'kyy biokhimichnyy zhurnal, v. 37, no. 4, 1965, 529-537

TOPIC TAGS: animal physiology, biologic metabolism, brain, cerebellum, hypoxia, phospholipid, rat

ABSTRACT: An improved method is presented for fractionating phospholipids of rat brain tissue on a battery of small silica gel columns. Elution in stages with chloroform-methanol mixtures is employed. This method permits study of the content and renewal rate of various phospholipid fractions under normal and hypoxic conditions. Male white rats weighing 180-240 g were subcutaneously injected with radioactive phosphate ($\text{Na}_2\text{HP}^{32}\text{O}_4$) in a dose of 5 μcu per g. Immediately afterwards, the rats were placed in a pressure chamber, where they "ascended to 9000 m" (240 mm Hg). They were decapitated two hours after the beginning of the experiment, and lipids were extracted from their cerebral hemispheres. One ml of concentrated extract was used for fractionation. An index of "relative specific radioactivity"

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L 1337-66

ACCESSION NR: AP5021236

was used to determine the renewal rate of phospholipids and phospholipid fractions. Experimental results showed that, under normal conditions, fractions of phosphatide acids and phosphoinositides (phosphatidyl inositols) are renewed significantly faster than the remaining fractions (lecithins, sphingomyelins, and amine-containing phospholipids [phosphatidylethanolamine and lysophosphatidylethanolamine]). This difference is apparently connected with the chemical structure of different phospholipid groups, and with differences in their biosynthesis. It was found that hypoxia does not change the content of the phospholipid fractions studied, but it definitely lowers the metabolic intensity of the phosphate groups in all fractions. A clear difference was established in the degree of lowering of the metabolic intensity of different fractions under hypoxic conditions. It was concluded that different enzyme systems catalyzing different biosynthetic reactions of various phospholipids are depressed to a different degree under hypoxic conditions. The greatest decrease in metabolism was observed in amine-containing phospholipids and in lecithin fractions, and the least in phosphatide acid fractions. Orig. art. has: 3 figures. [JS]

ASSOCIATION: Institut fiziologii im. I. P. Pavlova AN SSSR, Leningrad (Institute of Physiology, AN SSSR)

Card 2/3

L 1337-66
ACCESSION NR: AP5021236

SUBMITTED: 08May 64

NO REF SOV: 003

ENCL: 00

OTHER: 006

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07571-67 EWT(1) LJP(c)
ACC NR: AP6026938

SOURCE CODE: UR/0141/66/009/004/0786/0793

AUTHOR: Afanasov, S. G.; Shmelev, A. A.

ORG: Gor'kiy State University (Gor'kovskiy gosudarstvennyy universitet)

TITLE: Possibility of obtaining negative resistance in triodes with a control electrode behind the cathode

SOURCE: IVUZ. Radiofizika, V. 9, no. 4, 1966, 786-793

TOPIC TAGS: triode tube, electron tube grid, electrode negative resistance, volt ampere characteristic, ~~conformal mapping~~

ABSTRACT: The authors discuss tubes in which the control electrode (called "grid" in analogy with an ordinary vacuum tube) in the anode are located on opposite sides of the cathode, and calculate the currents flowing in the grid and in the anode circuits when a cathode of small radius is used. The volt-ampere characteristics of such a tube are calculated for different emissivities of the side of the cathode facing the grid, and it is shown that if this emissivity is small, such a system can have a static decrease in characteristic, wherein an increase in current accompanies a decrease in voltage, thus producing a negative-resistance device. The calculations are carried out by first conformally mapping the section through the tube and determining the potential distribution corresponding to the charge in the system. It is shown that the potential distribution is the same as for an equivalent asymmetrical diode, and the total current in the system is obtained by reducing the equivalent diode to

27
B

Card 1/2

UDC: 621.385.399: 537.533.2

L. 01571-51

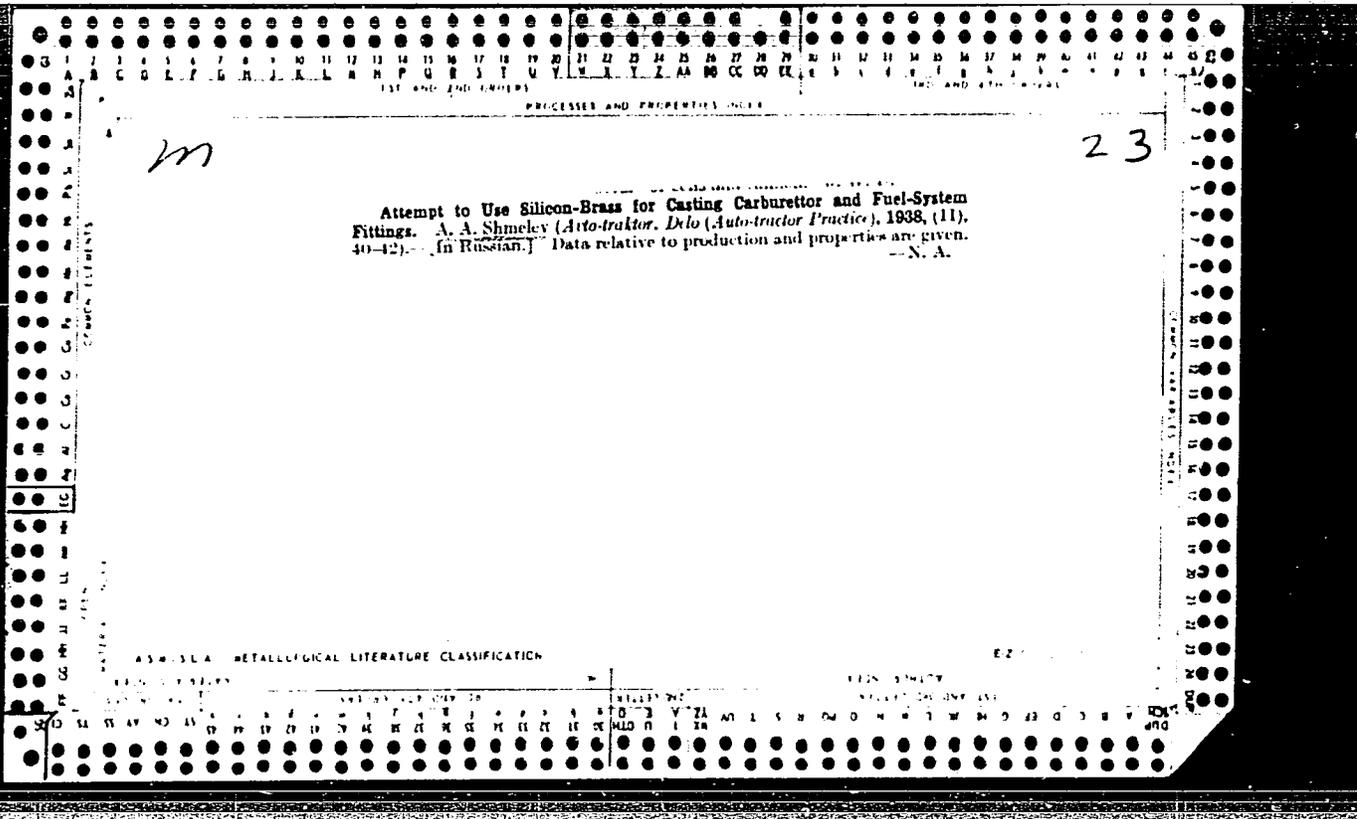
ACC NR: AF6026938

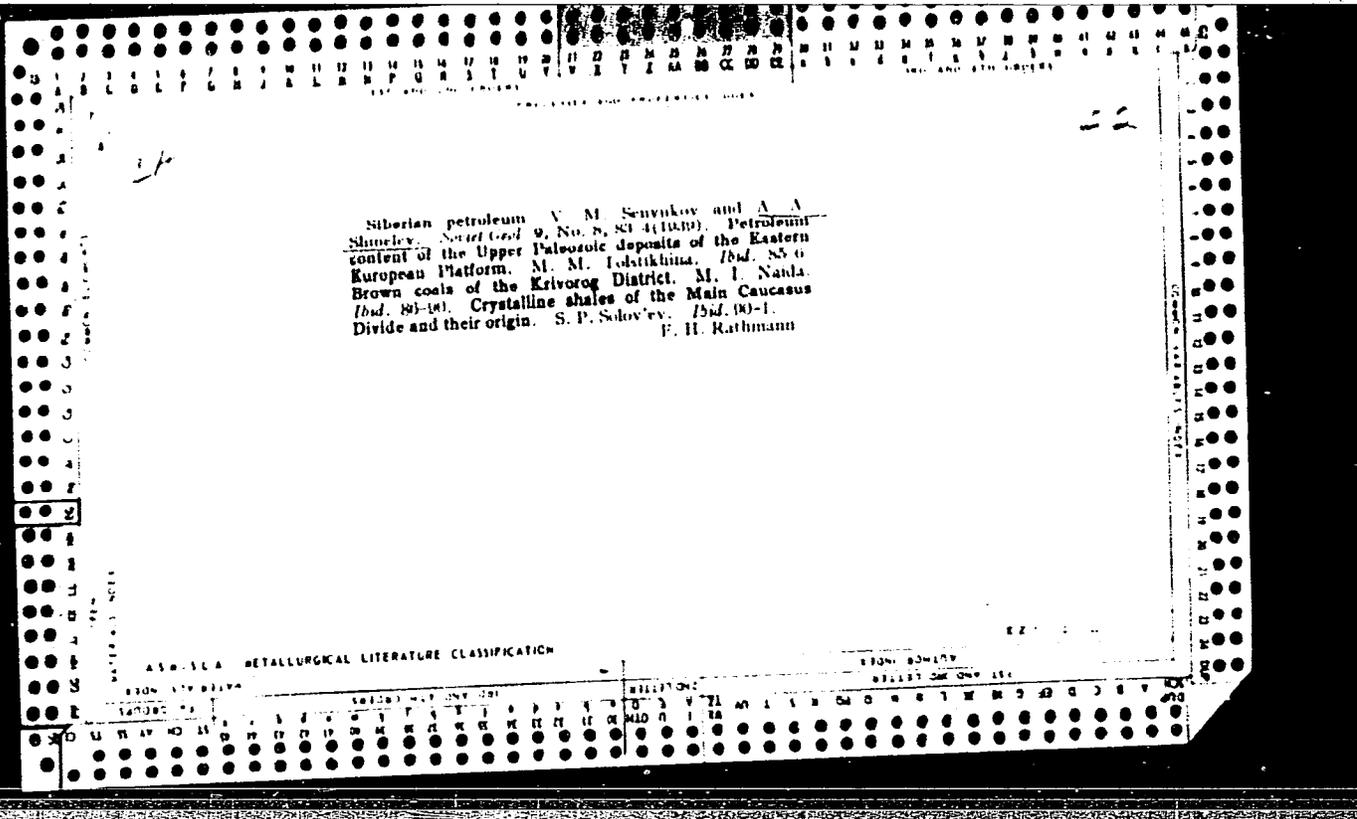
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a symmetrical cylindrical diode with a certain anode potential. The negative resistance can be reduced by introducing a supplementary cathode into the system. Orig. art. has: 3 figures and 21 formulas.

SUB CODE: 20, 09/ SUBM DATE: 13Dec65/ ORIG REF: 002/ OTH REF: 003

Card 2/2 *LC*





1. BPCHEM, 1. 1.
2. USSR (600)
4. Cupola Furnaces
7. Blast Heating in cupola Furnaces, Lit. review. No. 1, 1953.

9. Monthly List of Russian Accessions, Library of Congress, June 1953. Unclassified.

185T50

USSR/Engineering - Foundry, Equipment Feb 51

"Pouring Ladle With Electric Preheating," A. A. Shmelev, Plant Imment Sverdlov

"Littey Proiz" No 2, p 20

Nichrome heating unit was installed between 2 layers of ladle lining and double asbestos insulation was used inside and outside of metal body. Ladle was used in particular case when melting facilities could not produce sufficient quantity of aluminum alloy, required for large castings. Rate of decrease in temp of metal at 800° amounted

185T50

USSR/Engineering - Foundry, Equipment Feb 51
(Contd)

to 1200° per hr and av rate for entire pouring period was 48-52° per hr. Experimentally established possibility of holding 500 kg of alloy in ladle for 2-3 hr before pouring.

185T50

SHE... A. A.

SHMELEV, A. A.

YMLA

Journal of the Iron and Steel
Institute
Vol. 176 Part 3
Mar. 1954
Foundry Practice

Iron and Steel Foundry Practice. G. Brown. Sec. p. 311.
Heating the Blast for Cupolas. A. A. Shmelev. (*Litcinoe
Proizvodstvo*, 1953, 3, (1), 11-13). [In Russian]. Cupola
practice with blast heating is described and discussed, results
at two plants being compared. Methods used for modifying
a 3 ton cupola to work with hot blast are illustrated. Graphs
showing the effect on the rate of increase of cast iron tem-
perature of changes in blast pressure are presented. The
influence of recuperator design and methods of securing con-
stant burning conditions of the exit gas are considered.
Results of heat balances for controlled melts in two different
cupolas show that the effect of blast heating increases with
duration of operation and improvement in coke quality. — S. K.

SHMELEV, A.A.

The use of quick change coordinate plates in machine molding.
Lit.proizv. no.5:27-29 My '55. (MLRA 8:6)
(Machine molding)

BRABLIK, Ya.; SHMELEV, A.; SHLEPINA, M.M., redaktor; RAKOV, S.I.,
tekhnicheskiiy redaktor

[Trusing metal according to Otokar Vlach's oxyacetylene method]
Pravka metalla atsetileno-kislородnym plamenem po metodu Otakara
Vlakha. [Moskva] Izd-vo VTsSPS Profizdat, 1956. 64 p. (MIRA 10:2)
(Sheet-metal work) (Gas welding and cutting)

DVORKIN, V.Ya.; CHETVERIKOV, D.A.; SIMELEV, A.A. [Shmel'ov, A.A.]

Study of the content and regeneration rate of individual phospho-
lipid fractions in the brain of healthy rats and those with hypoxia.
Ukr. biokhim. zhurn. 37 no.4:529-537 '65. (MIRA 18:9)

1. Institut fiziologii im. I.P.Pavlova AN SSSR, Leningrad.

GOUROU, Pierre(1900-); MAKAROVA, N.M.[translator]; SHMELEV,
A.B.[translator]

[Asia] Aziia. Predisl. Konstantina Popova. Moskva,
Izd-vo inostr.lit-ry, 1956. 446 p. (MIRA 16:4)
(Asia--Description and travel)

SHMELEV, A.I.; KAZAK, M.I., inzhener, redaktor; BOGUSLAVSKIY, B.L.,
professor, retsenzent; POPOVA, S.M., tekhnicheskii redaktor.

[Vertical multispindle semi-automatic lathes; a turner's manual]
Vertikal'nye mnogospindel'nye tokarnye poluavtomaty; posobie dlia
rabochikh. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry,
1951. 194 p. (MIRA 8:1)
(Lathes)

KROGYUS, Rene Borisovich; SHMELEV, A.I., inzhener, retsenzent; NOSKIN, P.A.,
kandidat tekhnicheskikh nauk, dotsent, retsenzent; BEYZEL'MAN, R.D.,
inzhener, redaktor; BOGOMOLOVA, M.F., izdatel'skiy redaktor;
ZUDAKIN, I.M., tekhnicheskiy redaktor

[Mechanic engaged in repairing simple equipment] Slesar' po remontu
neslozhnogo oborudovaniia. Moskva, Gos. izd-vo obor. promyshl.;
1956. 191 p. (MLRA 9:10)
(Machine-shop practice)

SHMELEV, A.I., inzhener.

Designing presses with welded parts. Vest.mash.36 no.12:35-43 D
'56. (MLBA 10:2)
(Power presses--Welding)

PHASE I BOOK EXPLOITATION

SOV/3841

Shmelev, A.I.

Vertikal'nyye mnogospindel'nyye tokarnyye poluavtomaty (Vertical Multiple-Spindle Semiautomatic Lathes), 2d ed., Moscow, Mashgiz, 1959. 238 p. 7,000 copies printed.

Reviewer: B.L. Boguslavskiy; Ed.: N.R. Izakov, Candidate of Technical Sciences, Docent; Tech. Ed.: T.F. Sokolova; Managing Ed. for Literature on Metalworking and Tool Making: R.D. Boyzel'man, Engineer.

PURPOSE: This book is intended for operators of semiautomatic lathes.

COVERAGE: The principal types of vertical multiple-spindle semiautomatic lathes are described and their operation explained. Instructions are given for the setting up and repair of these machines. The book is designed to fill gaps in the existing literature in this field. No personalities are mentioned. There are no references.

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S/122/61/000/005/007/013
D221/D304

AUTHOR: Smulev, A.I. Engineer

TITLE: Straightening of shafts with the flame of gas burner

PERIODICAL: Vestnik mashinostroyeniya, no. 5, 1961, 49 - 55

TEXT: This material is taken from the work practice of the avto-zavod Likhacheva (Autoplant imeni Likhachev). During manufacture of new or repair of old machines it is frequently necessary to rectify bent and warped components. For diameters exceeding 100 mm, straightening of shafts often needs special and costly devices or much manual work. Recently wide use has been made of local surfaces heating by the flame of gas burner which allows the rectification of parts 600 mm or more thick. Straightening of items in low carbon steel that require an accuracy of a few fraction of mm per 1 m of length is simple and may be done with high temperatures and repeated heating. For accurate work this is a complicated matter, requires thorough calculation of intensity and duration of heating, as well as the size of heated surface. Application of high tempera-

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Straightening of shaft with the ...

ized by the number of burners, and between bending and intensity of heating is given graphically. The temperature of heating depends upon the type of steel, character of treatment, amount of deformation and diameter of shaft. The effect of the former on straightening begins at 200°C and increases with the temperature. In the case of alloyed steel structures high temperatures may cause deterioration of their mechanical properties. Deformations and stresses produced by high temperatures are caused by heating part of the fibers above the critical point, A_c , with the remainder of metal at lower temperatures, as shown in Fig. 5. When selecting the heat required, it should be noted that temperature above 600°C is not expedient, as a greater mass of metal is then deformed. The greater the deformation and diameter of shaft the larger should be the area of heating. There are 12 figures and 1 table.



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SHMELEV, A.I.

Assembly of heavy sheet-metal working presses. Kuz.-shtam.
proizv. 4 no.1:18-22 Ja 62. (MIRA 17:3)

SINELEV, Aleksandr Ivanovich; KVASOV, N.V., red.

[Voluntary forms of aid to technological progress; work practices of the voluntary offices of technological information in White Russia] Obshchestvennye formy so-deistviia tekhnicheskomu progressu; opyt raboty obshche-stvennykh ofisov tekhnicheskoi informatsii v Belorussii. Leningrad, 1963. 36 p. (MIRA 17:7)